* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
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NEWS 3	May 12	EXTEND option available in structure searching
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NEWS 18	SEP 01	INPADOC: New family current-awareness alert (SDI) available
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NEWS EXPRESS	JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
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NEWS LOGIN	Welcome Banner and News Items
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FILE 'HOME' ENTERED AT 16:22:28 ON 08 SEP 2004

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'HCAPLUS' ENTERED AT 16:22:35 ON 08 SEP 2004
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FILE COVERS 1907 - 8 Sep 2004 VOL 141 ISS 11
FILE LAST UPDATED: 7 Sep 2004 (20040907/ED)

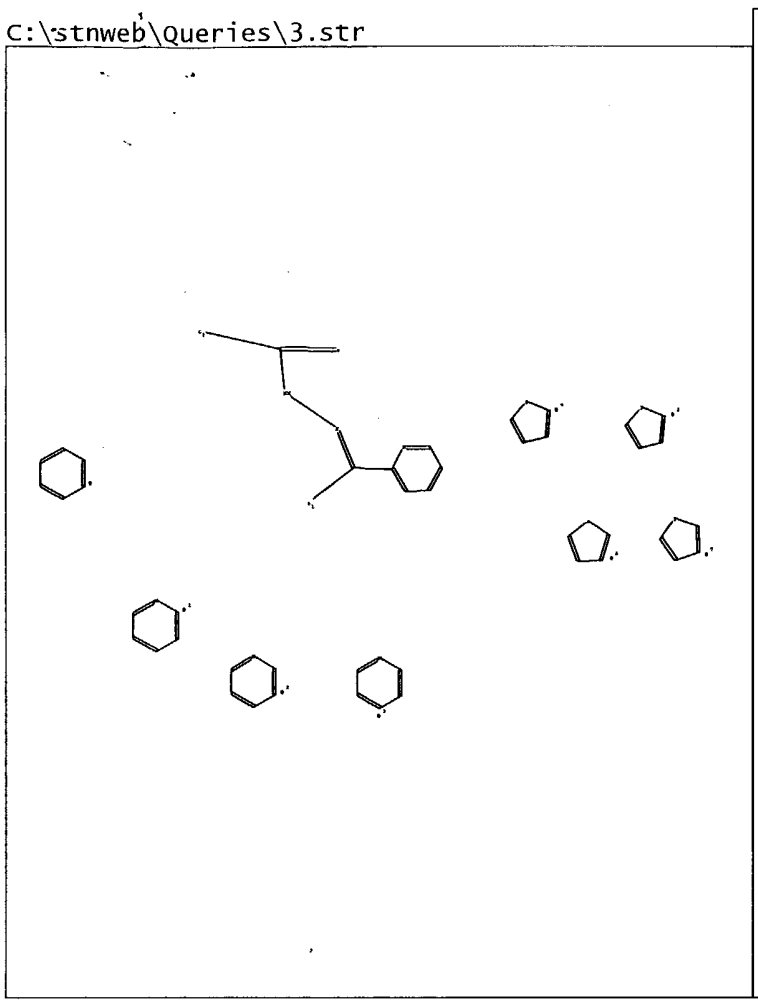
This file contains CAS Registry Numbers for easy and accurate
substance identification.

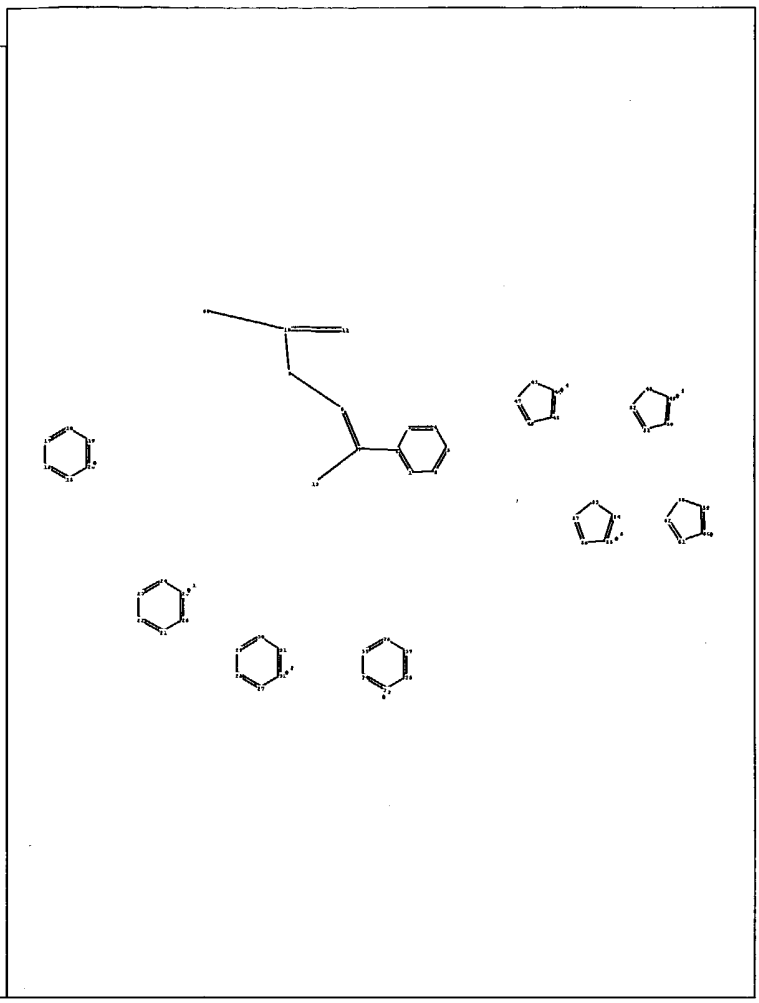
```
=> s iron () overload () disease?
        894883 IRON
         11168 IRONS
        895660 IRON
                  (IRON OR IRONS)
          9126 OVERLOAD
           584 OVERLOADS
          9474 OVERLOAD
                  (OVERLOAD OR OVERLOADS)
        801762 DISEASE?
L1          75 IRON (W) OVERLOAD (W) DISEASE?

=> s l1s l1 and chelator?
MISSING OPERATOR L1S L1
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l1 and chelator?
         13655 CHELATOR?
L2          21 L1 AND CHELATOR?

=> s l2 and review/dt
       1755763 REVIEW/DT
L3            6 L2 AND REVIEW/DT

=> d l3, ibib abs, 1-6

L3   ANSWER 1 OF 6  HCAPLUS  COPYRIGHT 2004 ACS on STN
```

Full Text | Citing References

ACCESSION NUMBER: 2004:136051 HCAPLUS
DOCUMENT NUMBER: 140:280599
TITLE: Iron(III) **chelators** and thalassemia
AUTHOR(S): Kumar, Praveen
CORPORATE SOURCE: Department of Chemistry, Narain (P.G.) College, Shikohabad, 205 135, India

C:\stnweb\Queries\3.str





chain nodes :
7 8 9 10 11 13 68
ring nodes :
1 2 3 4 5 6 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58
59 60 61 62
chain bonds :
2-7 7-8 7-13 8-9 9-10 10-11 10-68
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 15-16 15-20 16-17 17-18 18-19 19-20 21-22 21-26
22-23 23-24 24-25 25-26 27-28 27-32 28-29 29-30 30-31 31-32 33-34 33-38 34-35
35-36 36-37 37-38 43-44 43-47 44-45 45-46 46-47 48-49 48-52 49-50 50-51 51-52
53-54 53-57 54-55 55-56 56-57 58-59 58-62 59-60 60-61 61-62
exact/norm bonds :
7-8 7-13 8-9 9-10 10-11 10-68 43-44 43-47 44-45 45-46 46-47 48-49 48-52
49-50 50-51 51-52 53-54 53-57 54-55 55-56 56-57 58-59 58-62 59-60 60-61 61-62
exact bonds :
2-7
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 15-16 15-20 16-17 17-18 18-19 19-20 21-22 21-26
22-23 23-24 24-25 25-26 27-28 27-32 28-29 29-30 30-31 31-32 33-34 33-38 34-35
35-36 36-37 37-38
isolated ring systems :
containing 1 : 15 : 21 : 33 :

G1:H,OH

G2:[*1],[*2],[*3],[*4],[*5],[*6],[*7]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 13:CLASS 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom
32:Atom

33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 43:Atom 44:Atom 45:Atom
46:Atom 47:Atom 48:Atom 49:Atom 50:Atom 51:Atom 52:Atom 53:Atom 54:Atom 55:Atom
56:Atom 57:Atom 58:Atom 59:Atom 60:Atom 61:Atom 62:Atom 68:CLASS

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FILE 'HOME' ENTERED AT 18:13:36 ON 08 SEP 2004

=> file req

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FULL ESTIMATED COST	0.21	0.21

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STRUCTURE FILE UPDATES:     7 SEP 2004  HIGHEST RN 741217-26-5
DICTIONARY FILE UPDATES:    7 SEP 2004  HIGHEST RN 741217-26-5

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
L1       STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1               STR

=> s l1
SAMPLE SEARCH INITIATED 18:18:33 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      16 TO ITERATE

100.0% PROCESSED       16 ITERATIONS                                 2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE   **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:            80 TO      560
PROJECTED ANSWERS:                2 TO      124

L2             2 SEA SSS SAM L1

=> s l1 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 18:18:37 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     420 TO ITERATE

100.0% PROCESSED      420 ITERATIONS                                18 ANSWERS
SEARCH TIME: 00.00.01

L3             18 SEA SSS FUL L1

=> file hcaplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                             158.36     158.57
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FILE 'HCAPLUS' ENTERED AT 18:18:40 ON 08 SEP 2004
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FILE COVERS 1907 - 8 Sep 2004 VOL 141 ISS 11
FILE LAST UPDATED: 7 Sep 2004 (20040907/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

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=> s l3
L4            6 L3

=> s l4 and richardson, d?/au
           1214 RICHARDSON, D?/AU
L5            0 L4 AND RICHARDSON, D?/AU

=> s l4 and bernhardt, p?/au
            253 BERNHARDT, P?/AU
L6            0 L4 AND BERNHARDT, P?/AU

=> s l4 and becker, e?/au
           1294 BECKER, E?/AU
L7            0 L4 AND BECKER, E?/AU

=> d l4, ibib abs fhitstr, 1-6

L4   ANSWER 1 OF 6  HCAPLUS  COPYRIGHT 2004 ACS on STN
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Full Text | Citing References

ACCESSION NUMBER: 2003:610433 HCAPLUS
DOCUMENT NUMBER: 139:164699
TITLE: Preparation of 2-furancarboxylic acid hydrazides as glucagon antagonists
INVENTOR(S): Fujii, Akihito; Negoro, Toshiyuki; Migihashi, Chiaki; Murata, Makoto; Nakamura, Keiji; Nukuda, Takashi; Matsumoto, Takafumi; Konno, Kiyomi
PATENT ASSIGNEE(S): Dainippon Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 149 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2003064404	A1	20030807	WO 2003-JP871	20030130

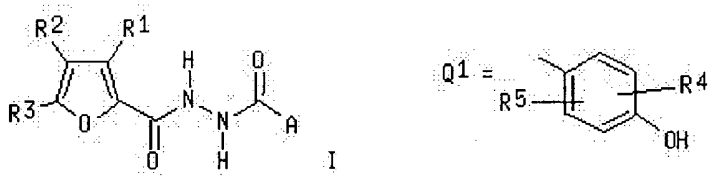
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2002-26012 A 20020201

OTHER SOURCE(S): MARPAT 139:164699

GI



AB The title compds. I [A is Q1, etc.; one of R4 and R5 is cyano, nitro, etc., and the other is hydrogen, etc.; one of R1 and R2 is aryl, etc., and the other is hydrogen, aryl, etc.; R3 is hydrogen, etc.] are prepd. I exhibit potent glucagon receptor antagonism and are useful as preventive and/or therapeutic drugs for symptoms and diseases in which glucagon participates. In an in vitro test for glucagon receptor antagonism using a rat liver prepn., compds. of this invention showed IC50 values of 1.5 nM to 380 nM.

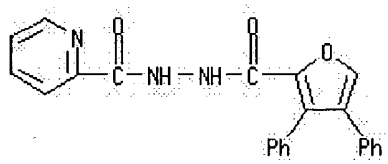
IT **576168-33-7P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 2-furancarboxylic acid hydrazides as glucagon antagonists)

RN 576168-33-7 HCAPLUS

CN 2-Pyridinecarboxylic acid, 2-[(3,4-diphenyl-2-furanyl)carbonyl]hydrazide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

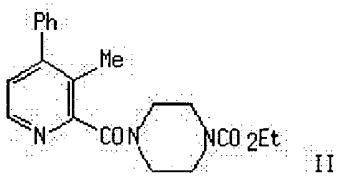
Full Text | Citing References

ACCESSION NUMBER: 1980:550093 HCAPLUS

DOCUMENT NUMBER: 93:150093

TITLE: Transformations in the pyridine series. A simple preparation of 3-methyl-4-phenylpyridine and corresponding 2-carboxamides

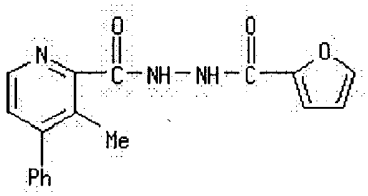
AUTHOR(S): Harrison, Ernest A., Jr.; Rice, Kenner C.; Rogers, Michael E.
CORPORATE SOURCE: Natl. Inst. Arthritis Metab. Dig. Dis., NIH, Bethesda, MD, 20205, USA
SOURCE: Heterocycles (1980), 14(6), 813-16
CODEN: HTCYAM; ISSN: 0385-5414
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



II

AB 3-Methyl-4-phenylpyridine (I) was prepd. in 96% yield by Huang-Minlon redn. of 4-phenyl-3-pyridinecarboxaldehyde. I was carboxylated followed by amidation to give its 1-pyridinecarboxamides, e.g. II. At 30 mg/kg II reduced edema in the rat adjuvant arthritis test by 17%.

IT **74834-52-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 74834-52-9 HCAPLUS
CN 2-Pyridinecarboxylic acid, 3-methyl-4-phenyl-, 2-(2-furanylcarbonyl)hydrazide, monohydrobromide (9CI) (CA INDEX NAME)



HBr

L4 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1974:551869 HCAPLUS
DOCUMENT NUMBER: 81:151869
TITLE: Heterocyclic compounds. XXII. Synthesis of 3,4-dihydroxy-2,5-dicarbomethoxyfuran derivatives. 2
AUTHOR(S): Yoshina, Shigetaka; Yamamoto, Katsumi
CORPORATE SOURCE: Fac. Pharm., Meijo Univ., Nagoya, Japan
SOURCE: Yakugaku Zasshi (1974), 94(9), 1139-48
CODEN: YKKZAJ; ISSN: 0031-6903
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB 3,4-Diaroyloxy-2,5-furancarboxylic acid hydrazides were prepd. by reaction of di-Me 3,4-diaroyloxy-2,5-furandicarboxylate derivs. with N2H4. 3,4-dimethoxy-2,5 furancarboxamide was similarly obtained. The hydrazides were treated with aldehydes to form hydrazones (28 compds.). Mass spectra were measured for the di-Me 3,4-diaroyloxy-2,5-furandicarboxylate derivs. and the hydrazides, and their fission pattern was examd. Uv absorption

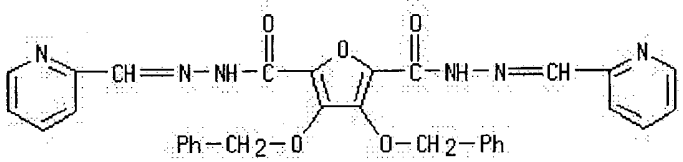
spectra of di-Me 3,4-diaroyloxy-2,5-furandicarboxylates and di-Me 3,4-dihydroxy-2,5-furandicarboxylate were also examd.

IT **53996-26-2P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 53996-26-2 HCAPLUS

CN 2,5-Furandicarboxylic acid, 3,4-bis(phenylmethoxy)-, bis[(2-pyridinylmethylene)hydrazide] (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1970:100448 HCAPLUS
DOCUMENT NUMBER: 72:100448
TITLE: Furan derivatives. XXXVIII. Hydrazidohydrazones of the pyridine and furan series
AUTHOR(S): Mndzhoyan. A. L.; Afrikyan, V. G.; Oganesyan, R. S.; Adzhibekyan, A. S.; Karagezyan, S. G.; Sarafyan, V. G.
CORPORATE SOURCE: Inst. Tonkoi Org. Khim., Erevan, USSR
SOURCE: Armyanskii Khimicheskii Zhurnal (1969), 22(10), 922-32
CODEN: AYKZAN; ISSN: 0515-9628
DOCUMENT TYPE: Journal
LANGUAGE: Russian

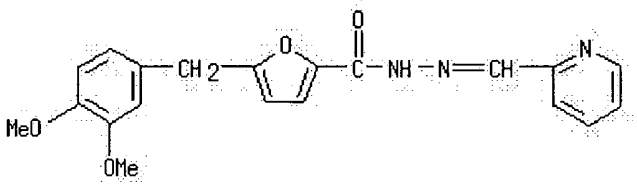
GI For diagram(s), see printed CA Issue.

AB A new series of title compds. was prepd. as potential chemotherapeutic agents for tuberculosis. To increase water soly. of the formerly prepd. analogs (CA 70: 1153 u; 67: 53943z), a new series (I) contg. morpholinlomethyl (Q), piperidinomethyl (T), and pyrrolidinomethyl (Y) groups was obtained. R, R1, pyridyl ring, substitution position, % yield, and m.p. for I were as follows: Q, H, 2, 73, 150-1°; Q, H, 3, 70, 142-4°; Q, H, 4, 75.4, 157-8°; T, H, 2, 70, 146-8°; T, H, 3, 93, 161-2°; T, H, 4, 93, 168-9°; Y, H, 2, 92.7, 141-2°; Y, H, 3, 96, 109-10°; Y, H, 4, 92, 135-6°; 3,4-(MeO)2C6H3CH2 (Z), H, 2, 89.7, 140-1°; Z, H, 3, 88, 153-4°; Z, H, 4, 84.6, 226-7°; Me, Q, 2, 90, 112-13°; Me, Q, 3, 92, 109-10°; Me, Q, 4, 91, 125-6°; Me, T, 2, 89, 106-7°; Me, T, 3, 92, 127-8°; Me, T, 4, 92.2, 117-18°; Me, Y, 2, 92, 114-15°; Me, Y, B, 93, 111-12°; and Me, Y, 4, 91.7, 100-1°. II were also prepd. (same data given): Z, H, 2, 81.6, 187-8°; Z, H, 3, 87.5, 181-2°; Z, H, 4, 82, 158-9°; Z, Me, 2, 87.6, 148-50°; Z, Me, 3, 81, 145-6°; and Z, Me, 4, 89, 151-2°. In III, the substitution position of the pyridyl rings, % yield, and m.p. were: 2, 92.3, 248-9°; 3, 91, 300-1°; and 4, 93.8, 305-6°. Bactericidal potencies of the compds. against 8 tuberculosis lab. strains, in vitro, were low, except for 4 more active II with 2 and 4-pyridine orientation. Data on potencies and LD (for mice) of I, II, and III are given. I were 5-10 times more potent against a resistant strain, freshly obtained from patients, than against lab. strain. Phys. consts. of the intermediate furans were given. Prepns. were by conventional methods.

IT **26095-25-0P**

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)
RN 26095-25-0 HCAPLUS
CN 2-Furoic acid, 5-veratryl-, (2-pyridylmethylene)hydrazide (8CI) (CA INDEX NAME)



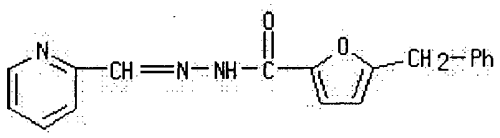
L4 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1969:11530 HCAPLUS
DOCUMENT NUMBER: 70:11530
TITLE: Furan derivatives. XXXIII. α-, β-, and γ-Pyridinecarboxaldehyde 5-and 4,5-substituted furoylhydrazones
AUTHOR(S): Mndzhoyan, A. L.; Afrikyan, V. G.; Oganesyan, R. S.; Shakhmuradova, A. O.; Zhuruli, L. D.; Karagezyan, S. G.; Sarafyan, V. G.
CORPORATE SOURCE: Inst. Tonkoi Org. Khim., Erevan, USSR
SOURCE: Armyanskii Khimicheskii Zhurnal (1968), 21(4), 340-7
CODEN: AYKZAN; ISSN: 0515-9628
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI For diagram(s), see printed CA Issue.
AB The following hydrazides (I) of 5- and 4,5-substituted furan-2-carboxylic acids were prepd. by boiling 0.1 mole of an alkyl ester of the acid with 0.12 mole N2H4.H2O in abs. EtOH for 10 hrs. (R, R', % yield, and m.p. given): Me, H, 96.1, 59-60°; Et, H, 78.0, 68-70°; PhCH2, H, 91.1, 98-9°; MeC6H4CH2, H, 94, 104-5°; MeOC6H4CH2, H, 88.1, 80-2°; Me, Me, 80.0, 95-6°; Me, PhCH2, 79.5, 109-10°. Treatment of 0.1 mole I with 0.11 mole α-, β- and γ-pyridine-carboxaldehyde, resp., in abs. EtOH yielded the following II R, R1, orientation of pyridine ring, % yield, and m.p. given): Me, H, α, 78.8, 178-9°; Me, H, β, 91.3, 129-30°; Me, H, γ, 89.9, 150-1°; Et, H, α, 75.8, 138-9°; Et, H, β, 90.9, 163-4°; Et, H, γ, 89.8, 115-16°; PhCH2, H, α, 89.3, 164-5°; PhCH2, H, β, 95.5, 195-6°; PhCH2, H, γ, 95.3, 175-6°; MeC6H4CH2, H, α, 68.4, 135-7°; MeC6H4CH2, H, β, 80.0, 155-6°; MeC6H4CH2, H, γ, 78.0, 176-8°; MeOC6H4CH2, H, α, 70.0, 164-5°; MeOC6H4CH2, H, β, 60.4, 185-6°; MeOC6H4CH2, H, γ, 75.5, 170-1°; Me, Me, α, 72.5, 189-90°; Me, Me, β, 94.0, 180-2°; Me, Me, γ, 83.0, 175-6°; Me, PhCH2, α, 75.6, 184-5°; Me, PhCH2, β, 94.6, 162-3°; Me, PhCH2, γ, 81.8, 180-1°. Reaction of pyridinecarboxaldehydes with the hydrazides of pyridinecarboxylic acids generated the following III (orientation of acid, orientation of aldehyde, % yield, and m.p. given): α, α, 91.6, 158-9°; α, β, 90.6, 168-9°; α, γ, 74.8, 194-5°; β, α, 71.2, 158-9°; β, β, 80.0, 206-7°; β, γ, 68.6, 197-8°; γ, α, 70.1, 163-4°; γ,

β, 72.2, 233-4°; γ, γ, 83.1, 227-9°. IV were also prepd. (no chem. details given). All compds. were tested for tuberculostatic activity against several strains of organisms. Of all compds., those most generally effective were those members of groups III and IV which were derived from pyridine-2- and pyridine-4-carboxylic acid.

IT **20842-30-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 20842-30-2 HCAPLUS
CN 2-Furoic acid, 5-benzyl-, (2-pyridylmethylene)hydrazide (8CI) (CA INDEX NAME)



L4 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

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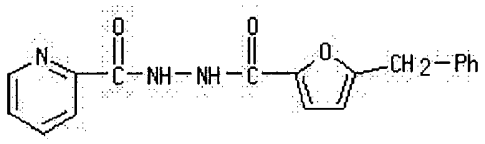
ACCESSION NUMBER: 1967:453943 HCAPLUS
DOCUMENT NUMBER: 67:53943
TITLE: Furan derivatives. XXXI. Some acid 2-alkylidene hydrazides and N,N'-diacylhydrazines as potential antitubercular agents
AUTHOR(S): Mndzhoyan, A. L.; et al.
SOURCE: Armyanskii Khimicheskii Zhurnal (1966), 19(10), 793-805
CODEN: AYKZAN; ISSN: 0515-9628
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI For diagram(s), see printed CA Issue.
AB cf. CA 63: 18004h. The title compds. were synthesized to find active antitubercular agents. 4-Ethoxybenzyl chloride (I), b1 105°, was prepd. in 67.7% yield by chloromethylation of phenetole. To 40 g. Me furan-2-carboxylate in 50 ml. CS2 in the presence of 0.025 mole ZnCl2, 10 ml. I in 50 ml. CS2 was added dropwise with stirring at 0° and the mixt. kept 30 min. at 0° and 30 min. at room temp. to give Me 5-(p-ethoxybenzyl)furan-2-carboxylate. Similarly prepd. were the following II, (R1 = H, R2 = CO2Me) (R, % yield, b.p./mm., n20D, and d20 given): p-ClC6H4CH2, 61.3, 178-9°/3 (m. 36-7°), -, -; p-MeOC6H4CH2, 50.5, 176-8°/3, 1.1704, 1.5588; p-EtOC6H4CH2, 46.8, 183-5°/3, 1.1475, 1.5475; p-PrOC6H4CH2 50.2, 189-90°/3, 1.1232, 1.5435; p-BuOC6H4CH2, 51.5, 196-8°/3, 1.1184, 1.5420; p-AmOC6H4CH2, 49.2, 210-11°/3, 1.0992, 1.5368. Similarly prepd. was 85.2% II (R = Me, R1 = PhCH2, R2 = CO2Me), b2 161-2°, n20D 1.4110, d20 1.5542. Sapon. of II (R1 = H, R2 = CO2Me) with 10% KOH gave the following II (R1 = H, R2 = CO2H) (R, % yield, and m.p. given): p-ClC6H4CH2, 90.3, 98-9°; p-MeOC6H4CH2, 83.4, 124-5°; p-EtOC6H4CH2, 85.3, 148-9°; p-PrOC6H4CH2, 82.3, 111-12°; p-BuOC6H4CH2, 83.5, 125-6°; p-AmOC6H4CH2, 81.4, 117-18°. Similarly prepd. was 90.3% II (R = Me, R1 = PhCH2, R2 = CO2H), m. 134-5°. Decarboxylation of II (R2 = CO2H) carried out at 190-250° gave the following II (R2 = H) (R, R1, % yield, b.p./mm., n20D, and d20 given): p-ClC6H4CH2, H, 93.9, 119-20°/3, 1.4482, 1.1189; p-MeOC6H4CH2, H, 81.5, 122-3°/2, 1.5484, 1.1065; p-EtOC6H4CH2, H, 90.4, 123-5°/2, 1.5400, 1.0683; p-PrOC4H4CH2, H, 92.8, 135-6°/2, 1.5330, 1.0519; p-BuOC6H4CH2, H, 94.5,

142-4°/2, 1.5278, 1.0355; p-AmOC6H4CH2, H, 90.5, 151-3/2, 1.5238, 1.0239; Me, PhCH2, 89.5, 122-4°/15, 1.5415, 0.9871. From disubstituted furan was obtained the 4-benzyl-5-methyl deriv. which also was decarboxylated. The 5- and 4,5-substituted furans were formylated and acetylated. Formylation was accomplished by methods previously described (CA 59: 2763g). To 0.15 mole Me2NCHO at 0°, 0.15 mole POCl3 was added slowly with stirring. The mixt. was stirred 30 min. at 0°, 0.1 mole freshly distd. 2-ethoxybenzylfuran was added at 10° during 0.5 hr., and the mixt. kept in an ice bath 30 min., poured into 200 ml. ice water at room temp., neutralized with Na2CO3, and kept overnight to give the following II (R2 = CHO) (R, R1, % yield, b.p./mm., m.p., n20D, and d20 given): p-ClC6H4CH2, H, 73.4, 176-8°/3, 39-40, -, -; p-MeOC6H4CH2, H, 72.5, 190-2°/3, -, 1.5904, 1.1767; p-EtOC6H4CH2, H, 81.5, 186-8°/3, -, 1.5768, 1.1930; p-PrOC6H4CH2, H, 79.7, 208-10°/3, 37-8°, -, -; p-BuOC6H4CH2, H, 81.2, 190-2°/3, 42-3°, -, -; p-AmOC6H4CH2, H, 80.7, 198-9°/3, 44-6°, -, -; Me, PhCH2, 87.5, 171-2°/5, -, 1.5869, 1.1182. To 0.1 mole freshly distd. 5-(p-ethoxybenzyl)furan and 0.2 mole Ac2O at 0°, H3PO4 was added with stirring and the mixt. stirred 30 min. and heated on a boiling water bath 3 hrs. to give the following II (R2 = Ac) (R, R1, % yield, b.p./mm., m.p., n20D, and d20 given): p-ClC6H4CH2, H, 70.3, 171-2°/2, 34-5°, -, -; p-MeOC6H4CH2, H, 50.3, 191-2°/2, -, 1.5750, 1.1405; p-EtOC6H4CH2, H, 51.8, 175-8°/2, -, 1.6502, 1.1283; p-PrOC6H4CH2, H, 63.2, 185-7°/2, -, 1.5558, 1.1177; p-BuOC6H4CH2, H, 65.5, 189-90°/2, -, 1.5598, 1.0909; p-AmOC6H4CH2, H, 67.1, 193-5°/2, 48-50°, -, -; Me, PhCH2, 40.7, 163-5°/2, -, 1.5720, 1.1011. The III listed in the first table were obtained by action of the appropriate pyridinecarboxylic acid hydrazide on the substituted furfural or substituted 2-acetylfuran in an alc. medium. From equimol. amts. of 5-methyl-4-benzylfuran-2-carbonyl chloride and picolinic acid hydrazide in 60 ml. dry pyridine heated at 120° for 10 hrs. were obtained the IV listed in the second table. [TABLE OMITTED] To equimol. amts. of the HCl salt, the chloride, and the hydrazide of picolinic acid, 7 g. KOH in 200 ml. EtOH was added with stirring and the mixt. heated 10 hrs. to give the following RCONHNHCOR1 (R, R1, % yield, and m.p. given): α-C5H4N, α-C5H4N, 37.1, 127-9°; α-C5H4N, β-C5H4N, 35.2, 215-16°; α-C5H4N, γ-C5H4N, 16.9, 208-9°; β-C5H4N, β-C5H4N, 25.6, 208-10°; β-C5H4N, γ-C5H4N, 20.2, 185-7°; γ-C5H4N, γ-C5H4N, 17.5, 196-8°. [TABLE OMITTED] Tubercular activity was tested in vitro. The most active compds. were derivs. of isonicotinic acid pyridinecarboxylic acids.

IT **15033-03-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 15033-03-1 HCAPLUS
CN Hydrazine, 1-(5-benzyl-2-furoyl)-2-picolinoyl- (8CI) (CA INDEX NAME)



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